

must test a preproduction product that will represent actual production. However, for fuel tank permeation, you may test a tank with standardized geometry provided that it is made of the same material(s) and appropriate wall thickness. In general, the test procedures specify that components or systems be tested rather than complete equipment. For example, to certify your family of Small SI equipment, you would need to test a sample of fuel line for permeation emissions and a fuel tank for permeation emissions. Note that paragraph (e) of this section and §1060.240 allow you in certain circumstances to certify without testing an emission-data unit from the emission family. Select test components that are most likely to exceed (or have emissions nearer to) the applicable emission standards as follows:

(1) For fuel tanks, consider the following factors associated with higher emission levels:

- (i) Smallest average wall thickness (or barrier thickness, as appropriate).
- (ii) Greatest extent of pinch welds for tanks using barrier technologies.
- (iii) Greatest relative area of gasket material, especially if gaskets are made of high-permeation materials.

(2) For fuel lines, consider the following factors associated with higher emission levels:

- (i) Smallest average wall thickness (or barrier thickness, as appropriate).
- (ii) Smallest inner diameter.
- (c) You may not do maintenance on emission-data units.
- (d) We may measure emissions from any of your products from the emission family, as follows:

(1) You must supply your products to us if we choose to perform confirmatory testing.

(2) If we measure emissions on one of your products, the results of that testing become the official emission results for the emission family. Unless we later invalidate these data, we may decide not to consider your data in determining if your emission family meets applicable requirements.

(e) You may ask to use carryover emission data from a previous production period instead of doing new tests, but only if all the following are true:

(1) The emission family from the previous production period differs from the current emission family only with respect to production period or other characteristics unrelated to emissions. You may also ask to add a configuration subject to §1060.225.

(2) The emission-data unit from the previous production period remains the appropriate emission-data unit under paragraph (b) of this section. For example, you may not carryover emission data for your family of nylon fuel tanks if you have added a thinner-walled fuel tank than was tested previously.

(3) The data show that the emission-data unit would meet all the requirements that apply to the emission family covered by the application for certification.

(f) We may require you to test another unit of the same or different configuration in addition to the unit(s) tested under paragraph (b) of this section.

(g) If you use an alternate test procedure under §1060.505, and later testing shows that such testing does not produce results that are equivalent to the procedures specified in this part, we may reject data you generated using the alternate procedure.

**§ 1060.240 How do I demonstrate that my emission family complies with evaporative emission standards?**

(a) For purposes of certification, your emission family is considered in compliance with an evaporative emission standard in subpart B of this part if you do either of the following:

(1) You have test results showing a certified emission level from the fuel tank or fuel line (as applicable) in the family are at or below the applicable standard.

(2) You comply with design specifications as specified in paragraphs (d) through (f) of this section.

(b) Your emission family is deemed not to comply if any fuel tank or fuel line representing that family has an official emission result above the standard.

(c) Round each official emission result to the same number of decimal places as the emission standard.

(d) You may demonstrate for certification that your emission family complies with the fuel tank permeation standards specified in §1060.103 with any of the following control technologies:

(1) A coextruded high-density polyethylene fuel tank with a continuous ethylene vinyl alcohol barrier layer (with not more than 40 molar percent ethylene) making up at least 2 percent of the fuel tank's overall wall thickness with any of the following gasket and fuel-cap characteristics:

(i) No nonmetal gaskets or fuel caps.

(ii) All nonmetal gaskets and fuel caps made from low-permeability materials.

(iii) Nonmetal gaskets and fuel caps that are not made from low-permeability materials up to the following limits:

(A) Gaskets with a total exposed surface area less than 0.25 percent of the total inside surface area of the fuel tank. For example, a fuel tank with an inside surface area of 0.40 square meters may use high-permeation gasket material representing a surface area of up to 1,000 mm<sup>2</sup> ( $0.25\% \times \frac{1}{100} \times 0.40 \text{ m}^2 \times 1,000,000 \text{ mm}^2/\text{m}^2$ ). Determine surface area based on the amount of material exposed to liquid fuel.

(B) Fuel caps directly mounted to the fuel tank with the surface area of the fuel cap less than 3.0 percent of the total inside surface area of the fuel tank. Use the smallest inside cross-sectional area of the opening on which the cap is mounted as the fuel cap's surface area.

(2) A metal fuel tank with the gasket and fuel-cap characteristics meeting the specifications in paragraphs (d)(1)(i) through (iii) of this section.

(e) You may demonstrate for certification that your emission family complies with the diurnal emission standards specified in §1060.105 with any of the following control technologies:

(1) A Marine SI fuel tank sealed up to a positive pressure of 7.0 kPa (1.0 psig); however, the fuel tank may contain air inlets that open when there is a vacuum pressure inside the tank.

(2) A Marine SI fuel tank equipped with a passively purged carbon canister that meets the requirements of this paragraph (e)(2). The carbon must ad-

sorb no more than 0.5 grams of water per gram of carbon at 90% relative humidity and a temperature of 25±5 °C. The carbon granules must have a minimum mean diameter of 3.1 mm based on the procedures in ASTM D2862 (incorporated by reference in §1060.810). The carbon must also pass a dust attrition test based on ASTM D3802 (incorporated by reference in §1060.810), except that hardness is defined as the ratio of mean particle diameter before and after the test and the procedure must involve twenty ½-inch steel balls and ten ¾-inch steel balls. Use good engineering judgment in the structural design of the carbon canister. The canister must have a volume compensator or some other device to prevent the carbon pellets from moving within the canister as a result of vibration or changing temperature. The canister must have a minimum working capacity as follows:

(i) You may use the measurement procedures specified by the California Air Resources Board in Attachment 1 to TP-902 to show that canister working capacity is least 3.6 grams of vapor storage capacity per gallon of nominal fuel tank capacity (or 1.4 grams of vapor storage capacity per gallon of nominal fuel tank capacity for fuel tanks used in nontrailerable boats). TP-902 is part of Final Regulation Order, Article 1, Chapter 15, Division 3, Title 13, California Code of Regulations, July 26, 2004 as adopted by the California Air Resources Board (incorporated by reference in §1060.810).

(ii) You may produce canisters with a minimum carbon volume of 0.040 liters per gallon of nominal fuel tank capacity (or 0.016 liters per gallon for fuel tanks used in nontrailerable boats). The carbon canister must have a minimum effective length-to-diameter ratio of 3.5 and the vapor flow must be directed with the intent of using the whole carbon bed. The carbon must have a minimum carbon working capacity of 90 grams per liter.

(f) We may establish additional design certification options where we find that new test data demonstrate that the use of a different technology design will ensure compliance with the applicable emission standards.

(g) You may not establish a family emission limit below the emission standard for components certified based on design specifications under this section even if actual emission rates are much lower.

**§ 1060.250 What records must I keep?**

(a) Organize and maintain the following records:

(1) A copy of all applications and any summary information you send us.

(2) Any of the information we specify in § 1060.205 that you were not required to include in your application.

(3) A detailed history of each emission-data unit. For each emission data unit, include all of the following:

(i) The emission-data unit's construction, including its origin and buildup, steps you took to ensure that it represents production equipment, any components you built specially for it, and all the components you include in your application for certification.

(ii) All your emission tests, including documentation on routine and standard tests, and the date and purpose of each test.

(iii) All tests to diagnose emission control performance, giving the date and time of each and the reasons for the test.

(iv) Any other significant events.

(4) Annual production figures for each emission family divided by assembly plant.

(5) Keep a list of equipment identification numbers for all the equipment you produce under each certificate of conformity.

(b) Keep required data from routine emission tests (such as temperature measurements) for one year after we issue the associated certificate of conformity. Keep all other information specified in paragraph (a) of this section for eight years after we issue your certificate.

(c) Store these records in any format and on any media as long as you can promptly send us organized, written records in English if we ask for them. You must keep these records readily available. We may review them at any time.

**§ 1060.255 What decisions may EPA make regarding my certificate of conformity?**

(a) If we determine your application is complete and shows that the emission family meets all the requirements of this part and the Clean Air Act, we will issue a certificate of conformity for your emission family for that production period. We may make the approval subject to additional conditions.

(b) We may deny your application for certification if we determine that your emission family fails to comply with emission standards or other requirements of this part or the Clean Air Act. We will base our decision on all available information. If we deny your application, we will explain why in writing.

(c) In addition, we may deny your application or suspend or revoke your certificate if you do any of the following:

(1) Refuse to comply with any testing or reporting requirements.

(2) Submit false or incomplete information (paragraph (e) of this section applies if this is fraudulent).

(3) Render inaccurate any test data.

(4) Deny us from completing authorized activities despite our presenting a warrant or court order (see 40 CFR 1068.20). This includes a failure to provide reasonable assistance.

(5) Produce equipment or components for importation into the United States at a location where local law prohibits us from carrying out authorized activities.

(6) Fail to supply requested information or amend your application to include all equipment or components being produced.

(7) Take any action that otherwise circumvents the intent of the Clean Air Act or this part.

(d) We may void your certificate if you do not keep the records we require or do not give us information when we ask for it.

(e) We may void your certificate if we find that you intentionally submitted false or incomplete information.

(f) If we deny your application or suspend, revoke, or void your certificate, you may ask for a hearing (see § 1060.820).